

# Essential Training: Effective Use of Chemotherapy Spill Kits

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## Background

Despite requirements under USP <800>, many healthcare personnel who handle hazardous drugs lack consistent training in the proper use of chemotherapy spill kits and hazardous drug spill management. Spill kits are essential for the containment, decontamination, and safe disposal of hazardous chemotherapy agents to protect healthcare workers and maintain a safe environment.

In response to these gaps in training, a structured educational program was implemented for pharmacy and nursing staff at Mass General Cancer Center in Danvers, Massachusetts.

#### Purpose

The aim of this activity was to increase staff knowledge, confidence, and compliance with spill management protocols through both theoretical and practical training.

NURSING HAZARDOUS DRUG SPILL MANAGEMENT Keywords: Hazardous Drugs (HDs), High Risk HD, Chemotherapy, Spill Management Level of Personnel: RN, PCA, any other nursing personnel handling or administering

nazards associated with the handling of hazardous drugs, or defining what is an unacceptable and worker protection guidelines for those health care workers involved in the handling and cleaning of hazardous drugs. The only recognized way of reducing risk is strict adherence to policies and procedures for safe handling and disposal of hazardous drugs.

regardless of indications for use, route of administration or area of handling. 2. All persons handling hazardous drug during a spill has a responsibility to understand the guiding principles of safe handling, based on best available evidence. All persons should

#### **Theoretical Training:**

- Review of:
- Policies and procedures
- Importance of spill management
- Required PPE, donning and doffing procedure
- Detailed step-by-step spill response procedure



#### **Practical Training:**

- Demonstration of several different types of spills
- Inside the containment primary engineering control (C-PEC)
- Infusion areas
- Receiving areas
- Powder spills
- Hands-on demonstration

### Methods

**Pre-Activity** Survey

- Mass General Cancer Center nursing and pharmacy staff were included in this
- A pre-activity survey was provided to gauge participant knowledge and understanding of hazardous drug spill management and spill kit policies and procedures in their respective areas.
- Learning materials, including area-specific policies and procedures were provided for reference.
- A mock chemotherapy spill was conducted with learner participation.
- A Q&A session was completed.

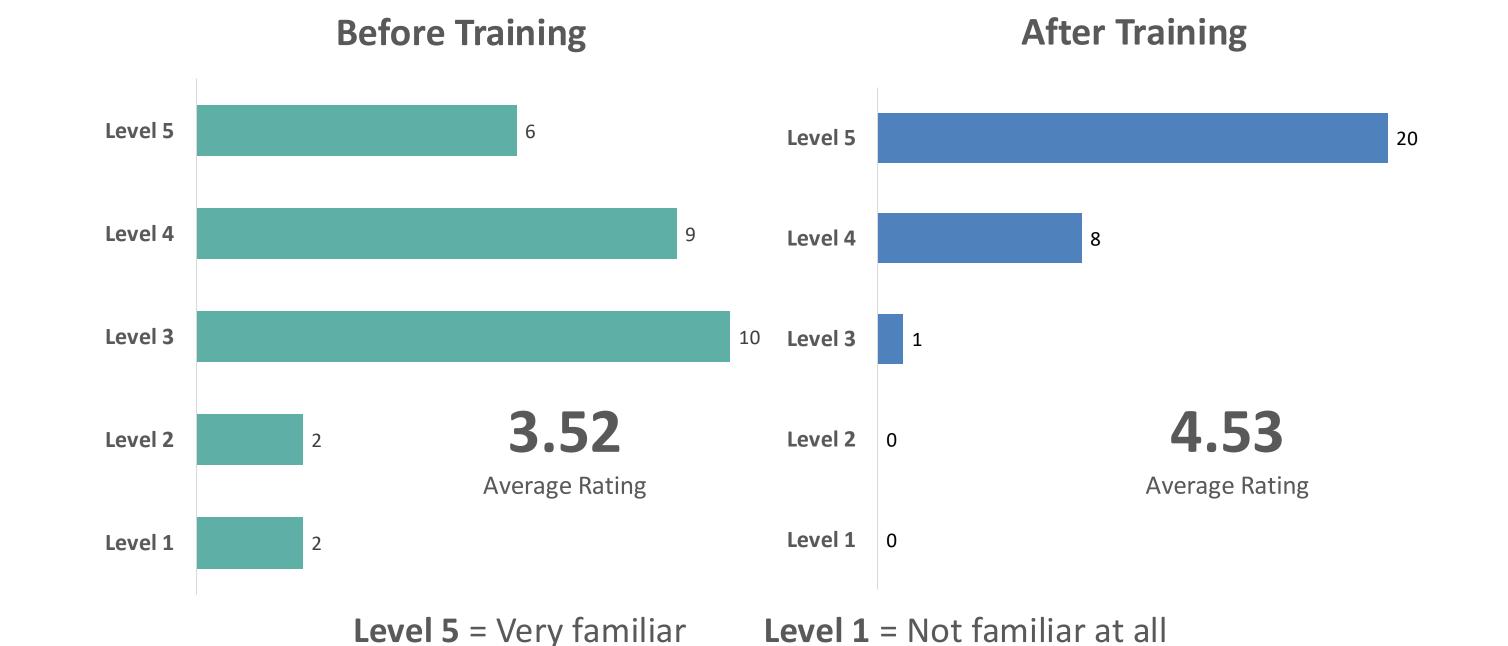
Post-Activity Survey

**Activity** 

• An additional post-activity survey was given to assess effectiveness of activity and provided learning materials.

## Results

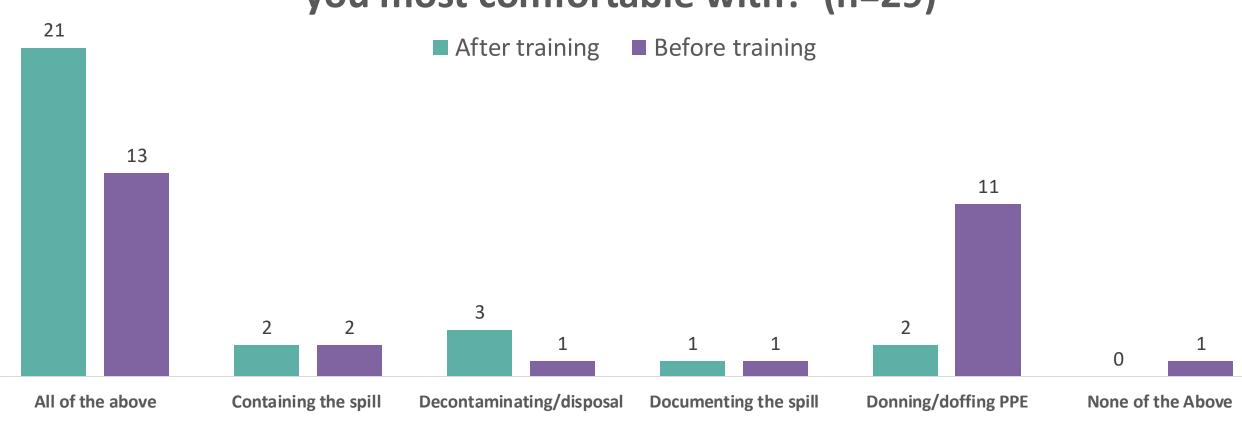
How familiar are you with the contents of the chemotherapy spill kit available in your area? (n=29)



how to use a chemotherapy spill kit? spill based on the training you (n=29)received? (n=29) 100%

■ No ■ Yes ■ No ■ Yes

Which procedures of hazardous drug spill management are you most comfortable with? (n=29)



What was the most helpful part of the training?

"The most helpful part was being able to observe the 3 different types of spills that were demonstrated. Visual in-person training is very helpful!"

"The explanation for each action and what each item is used for in the step-by-step process."

Have you received previous training on

"The demonstration; it was helpful to watch a simulated spill as opposed to being talked through one."

Do you feel prepared to respond to a

# Pre/Post Activity Survey

Scan the QR code to view the pre and post assessment survey(s)





# Next Steps

- Organize annual training sessions to keep all staff current with safety protocols and procedures
- Continuously review and refresh training materials
- Incorporate additional hands-on exercises and simulations to enhance learning and readiness
- Encourage staff to file detailed safety reports when spills occur, as documented safety reports regarding chemotherapy spills were scarce and lacked substantial detail
- Broaden scope of training to other areas/enterprise sites, as needed

#### Conclusion

Post-training survey data showed a significant increase in staff confidence. Participants unanimously reported feeling more prepared to manage spills, and many highlighted the hands-on demonstrations as the most impactful aspect. The program's success supports the need for recurring training to reinforce safety standards and enhance staff performance during hazardous drug exposure events.

Additionally, completing detailed safety reports after spills is essential for recognizing patterns, enhancing workplace safety measures, and ensuring accountability within the workplace.

#### Additional Materials

Scan the QR code for review of abstract and references

